To: Schaller, Andrea[schaller.andrea@epa.gov]; Eisenberg, Mindy[Eisenberg.Mindy@epa.gov]; George Delancey (george.j.delancey@usace.army.mil)[george.j.delancey@usace.army.mil]; Swenson, Peter[swenson.peter@epa.gov]
Cc: West, Bryce[BWest@peabodyenergy.com]; Rogers, Ken M.[KRogers@peabodyenergy.com]; Eric Fry (ericfryllc@yahoo.com)[ericfryllc@yahoo.com]
From: Nelson, Ann M
Sent: Wed 4/12/2017 9:04:56 PM
Subject: FW: Seven Hills Permit Area HGM Re-evaluation
SevenHills_HGM_2017_Memorandum_04.12.2017.pdf

Everyone,

Please find attached the summary of the HGM data collected by Eco-Tech last week for the wetlands within the Seven Hills permit area. The memorandum also includes copies of the field data sheets.

If you have any questions, please let myself or any other Peabody representative know.

Thanks,

Ann Nelson

Ann Nelson, PE | Sr. Engineer | Midwest

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From: Lee Droppelman [mailto:ldroppelman@ecotechinc.com]
Sent: Wednesday, April 12, 2017 2:40 PM
To: West, Bryce
Cc: Rogers, Ken M.; Nelson, Ann M; Rick Larsen; Scott Slankard; ericfryllc@yahoo.com
Subject: Seven Hills Permit Area HGM Re-evaluation

Mr. West

Please find attached a brief summary of the HGM data collected at the Seven Hills permit area. This is a re-evaluation of 9 assessment locations previously visited in 2006. For all sites combined, we are showing reduced index scores (-8% aggregate mean). This is primarily attributable to:

1. We reran data from 2006 into a downloaded USACE ERDC HGM FCI calculator for all data collected in 2006 (and 2017). This produced very minor changes upward in the scores originally reported.

2. A few sample sites were moved in the field slightly to better represent wetland communities of 2017. Plot data is expected to show some variation.

3. For sites not moved, variation may still be expected from several variables purely on the basis of differing sampling measures/bias between observers and over time.

4. Lastly, we interpreted a few variables slightly differently this go around. Such as Surface Connections. In 2006 we included relatively unaltered intermittent tributaries as the driving hydrological feature at a few plots. We now consider the highly altered Pigeon Creek to be the primary driver. Since it is channelized throughout its length this variable was reduced to zero. As a result FCIs such as Export Organic Carbon were reduced to zero across the board.

In the interest of time, our discussion of the results is relatively brief. We are available to discuss the methodology employed and any interpretation that may be needed at your convenience.

Feel free to call me anytime to discuss directly. Thank you!

Lee

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Lee Droppelman

President/Principal Scientist

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